F·A·A·M facility for airborne atmospheric measurements

FLIGHT FOLDER

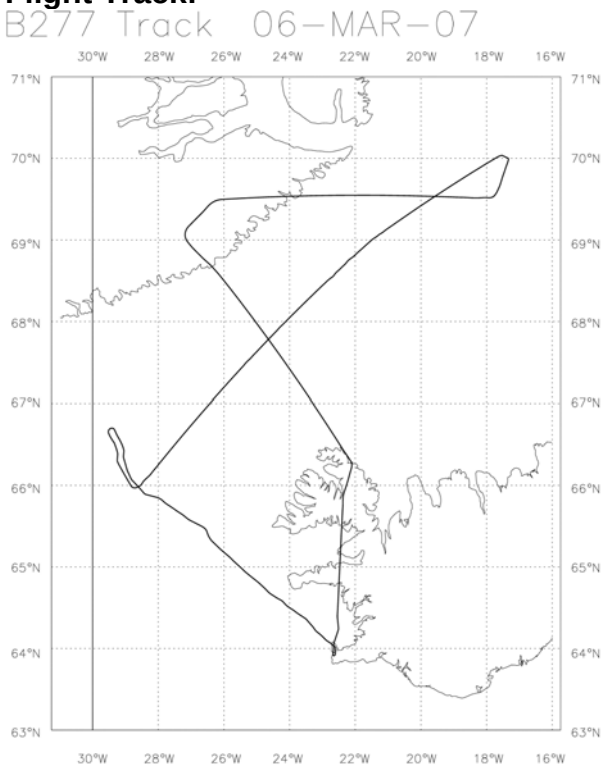
Flight No.:	B277
Date:	06 March 2007
Take Off	10:27:04Z
Landing:	15:58:36Z
Flight Time	5h31m32

Campaign: GFDEX – Barrier Wind / Surface Fluxes

Operating Area: Denmark Strait (N)

POB	Position	Name	Institute
1	Captain	Alan Roberts	Directflight
2	Co-pilot	Steve Ball	FAAM
3	CCM	Gaynor Ottaway	Directflight
4	Mission Scientist 1	Kent Moore	University of Toronto
5	Flight Manager	Mo Smith	FAAM
6	Cloud Physics	Kate Turnbull	FAAM
7	AVAPS / CCM2	Stuart Heath	FAAM
8	Mission Scientist 2	G. Nina Petersen	UEA
9	Mission Scientist 3	Tom Haine	John Hopkins University
10	Mission Scientist 4	Jon Egill Kristjansson	University of Oslo
11	Mission Scientist 5	Carling Hay	University of Toronto
12	Mission Scientist 6	Tadayasu Ohigashi	University of Toronto
13	Film Crew 1		Discovery TV
14	Film Crew 2		Discovery TV
15			
16			
17			
18			
19			
20			

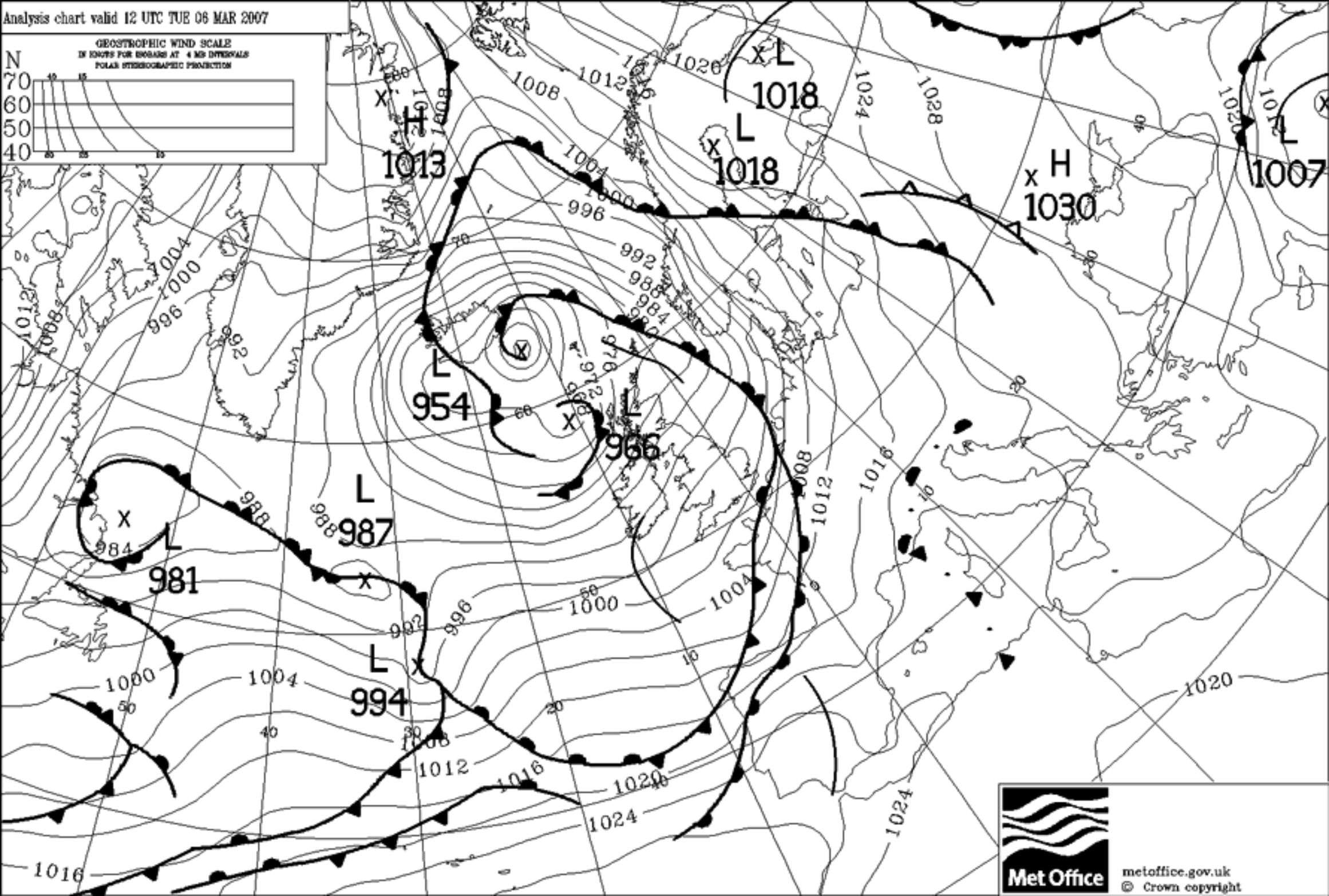
Flight Track:



FLIGHT SUMMARY

Flight No b277
Date: 06 Mar 2007
Project: GFDEX - Barrier wind
Location: Denmark Strait

Start Time	End Time	Event	Height (s)	Hdg	Comments
101004		Start-Up	1.5 kft	284	63'58.45N, 22'35.76W
101604		INU	1.5 kft	284	To Navigate
102704		T/O	2.3 kft	314	Keflavik
104318		Videos	2.4 kft	305	Start FFC & DFC
105250		Event	2.5 kft	318	Ovhd 1st point
105455	113534	Run 1.1	1.3 - 3.0 kft	324	100' on QNH970hPa
105528		Heimann	1.3 kft	322	Calibrate
110107		Event	1.2 kft	335	Turn to avoid wx
110803		Event	1.2 kft	316	Now @ 150'
111229		Event	1.5 kft	316	Climb to 1k',bad viz
113246		Event	2.0 kft	345	QNH 982hPa
113302		Event	1.8 kft	343	Descend over ice
113504		Event	2.2 kft	348	Back to 2k'
113757	115123	Run 2.1	2.9 kft	137	2k' QNH982
114704		Pressure	2.9 kft	136	QNH 980
115123	123536	Run 2.2	2.9 - 3.0 kft	033	QNH 979
121505		Videos	3.0 kft	043	Change Tapes
123323		Event	2.9 kft	045	Sea State 9
123536	123758	Profile 1.1	3.0 - 1.3 kft	042	2k'-500',Q982
123759	124043	Profile 1.2	1.3 - 3.9 kft	039	500'-3k', Q982
124043	124224	Profile 1.3	3.9 - 2.9 kft	044	3k'- 2k'
124225	125045	Run 2.3	2.9 kft	044	At 2k'
125045	125227	Profile 2.1	2.9 - 3.6 kft	041	
125227	125509	Profile 2.2	3.8 - 3.6 kft	043	
125509	125647	Profile 2.3	3.6 - 2.9 kft	044	
125647	131110	Run 2.4	2.9 kft	040	At 2k'
131157	131352	Profile 2.4	2.4 - 1.2 kft	038	2k'-500', sea state9
131353	131601	Profile 2.5	1.2 - 3.7 kft	041	500-3k', ss9, Q986
131601	131750	Profile 2.6	3.7 - 2.8 kft	035	3k'-2k'
131751	131913	Run 2.5	2.8 kft	036	AT 2k'
131914	132044	Profile 2.7	2.8 - 1.2 kft	037	2k'- 500'
132045	132233	Profile 2.8	1.2 - 3.7 kft	031	500'-3k'
132233	132403	Profile 2.9	3.7 - 2.8 kft	049	3k'-2k'
132403	133017	Run 2.6	2.8 kft	034	At 2k'
133027	133229	Profile 3.1	2.8 - 1.1 kft	037	2k'-500', Q986
133253	135652	Profile 3.2	1.4 - 25.0 kft	040	500'-FL250
134723		Video	16.3 kft	056	Change Tapes RFC & DFC
140501	143639	Run 3.1	25.0 kft	261	
140923		Sonde	25.0 kft	266	Launch #01
141328		Sonde	25.0 kft	265	Launch #02
141728		Sonde	25.0 kft	265	Launch #03
142116		Sonde	25.0 kft	264	Launch #04
142507		Sonde	25.0 kft	263	Launch #05
142857		Sonde	25.0 kft	266	Launch #06
143243		Sonde	25.0 kft	270	Launch #07
143622		Sonde	25.0 kft	269	Launch #08
143634		Event	25.0 kft	269	Contrailing
144403	152555	Run 3.2	25.0 kft	139	Launch #09
144912		Sonde	25.0 kft	135	Launch #10
145401		Sonde	25.0 kft	143	Launch #11
145901		Sonde	25.0 kft	145	Launch #12
150415		Sonde	25.0 kft	144	Launch #13
150932		Sonde	25.0 kft	143	Launch #14
151446		Sonde	25.0 kft	144	Launch #15
151735		Videos	25.0 kft	144	Change Tapes
152006		Sonde	25.0 kft	144	Launch #16
152529		Sonde	25.0 kft	142	Launch #17
155836		Land	1.4 kft	109	Keflavik
160238		Shutdown	1.4 kft	272	63'58.45N, 22'35.78W


Analysis chart valid 12 UTC TUE 06 MAR 2007
GEOSTROPHIC WIND SCALE
IN KNOTS FOR 950MB AT 4 MB INTERVALS
POLAR STEREOGRAPHIC PROJECTION
N
70
60
50
40
H
1013
L
1018
L
1018
H
1030
L
1007
L
954
L
966
L
987
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981
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994
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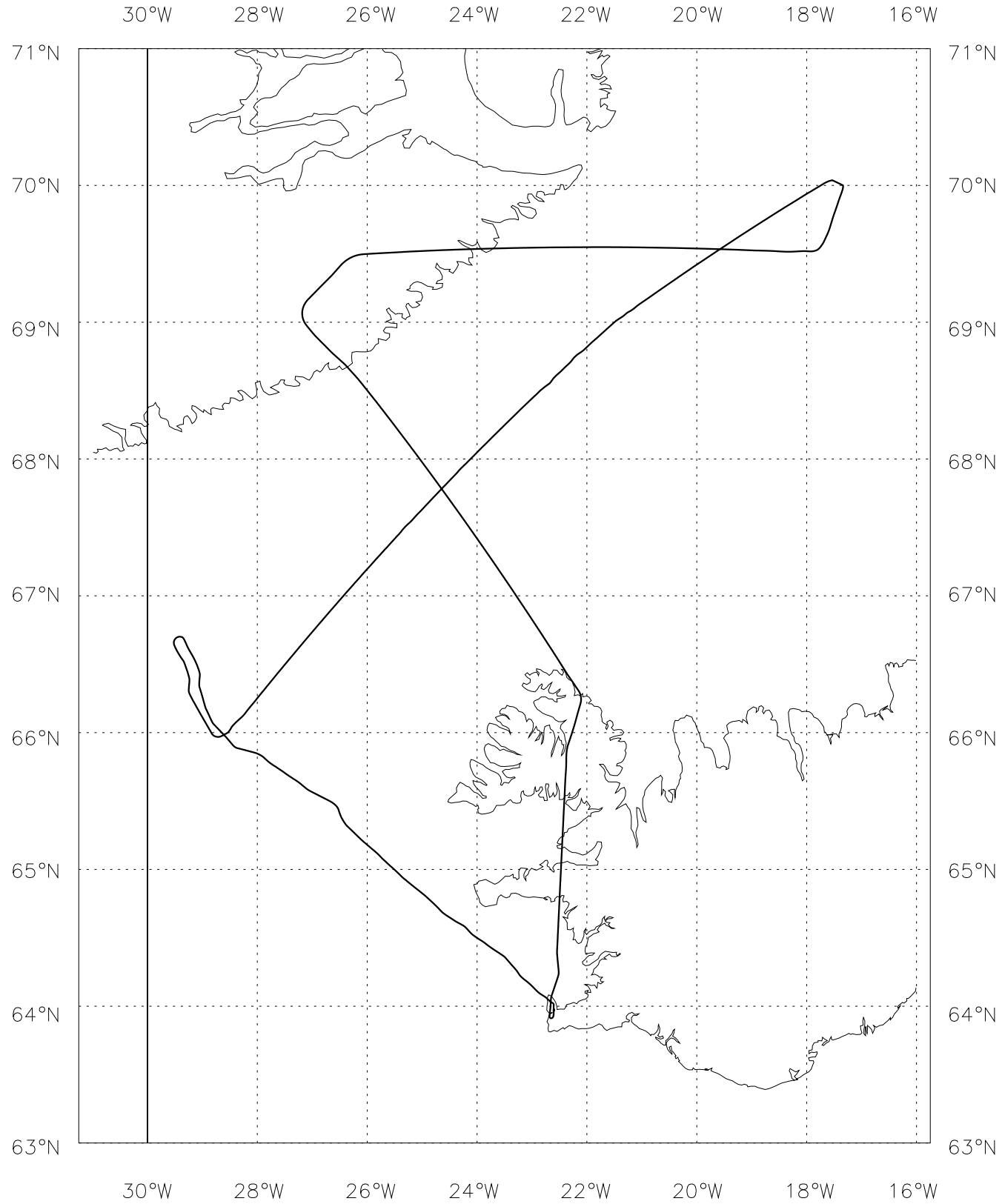
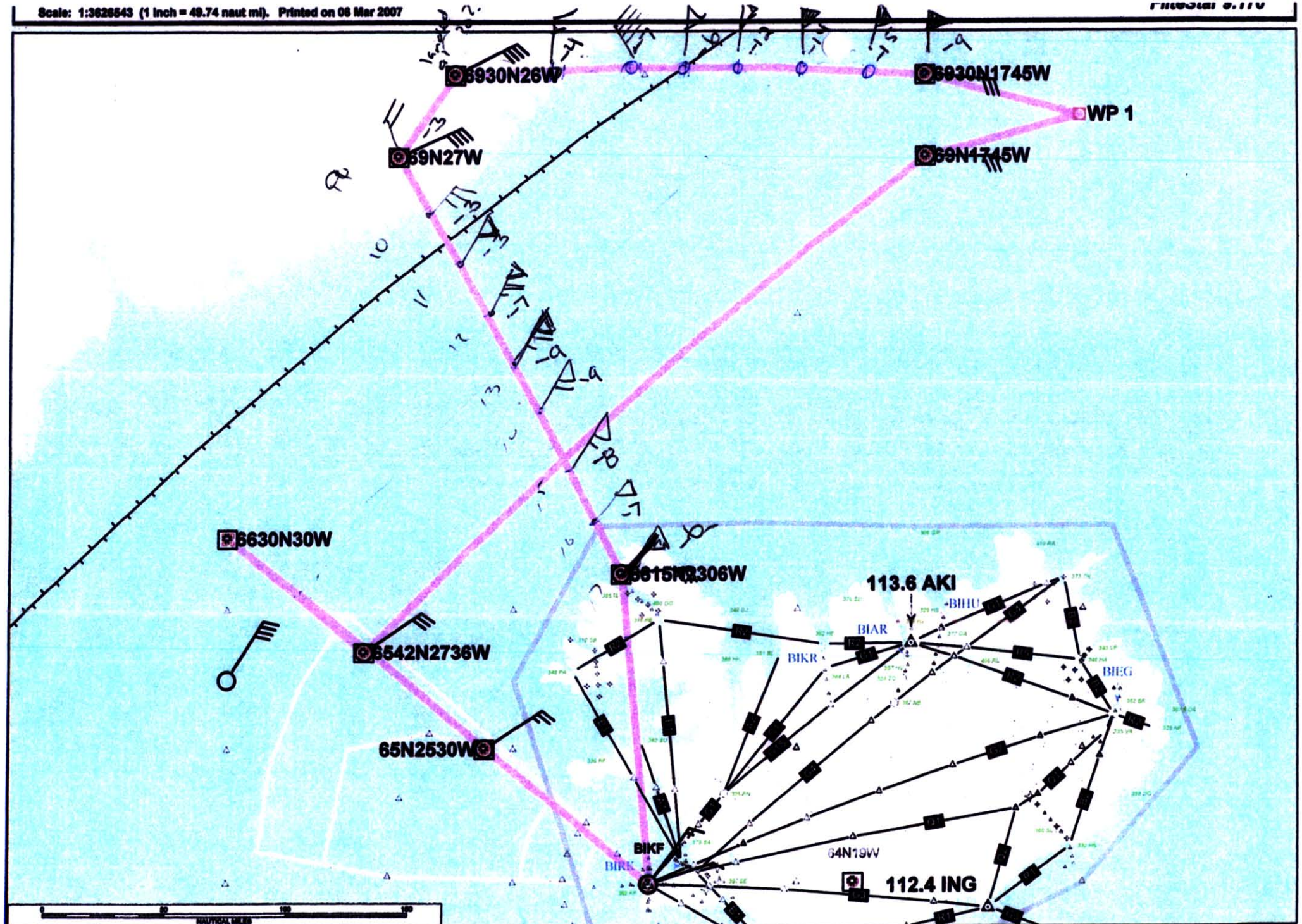
B277 Track 06-MAR-07



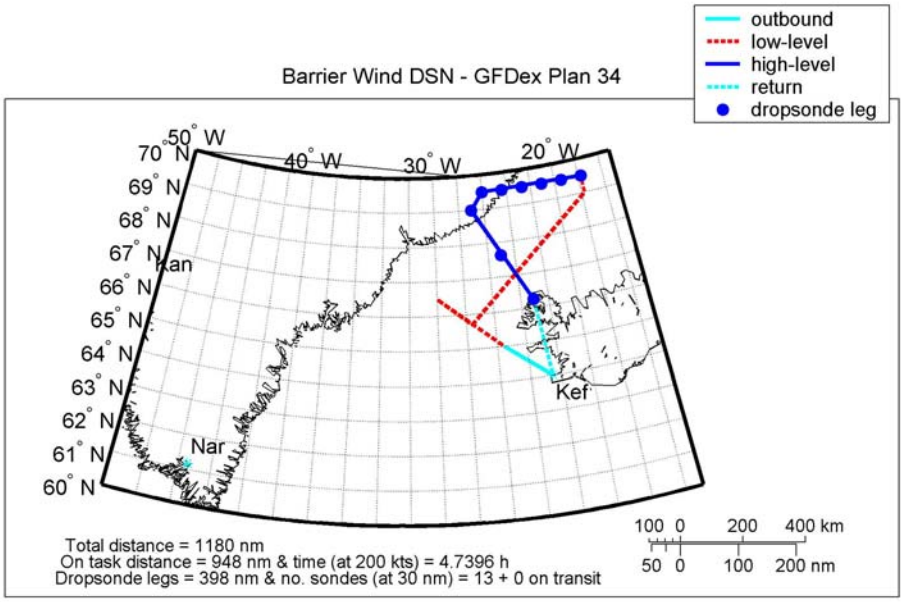


GFDex Sortie Brief – B277 – 6 March 2007
Barrier Winds (Plan 34)

Mission Scientist 1: Kent Moore
Mission Scientists: Nina Petersen, Tom Haine, Carling Hay, Tadayasu Oghiushi
Observers: Discovery Channel Crew (2)
Aims

- Map out the structure of the air-sea fluxes associated with the barrier winds along the northern Denmark Strait through a combination of cross-wind and down-wind legs.
- Map out the vertical structure of the barrier wind
- Total dropsondes 17, distance 1150 nm

GFD41	Time	Manoeuvre	Distance (nm)	Duration (min)	Total time (min)
1	1030	Take off Keflavík , transit to 65N, 25.5W (below cloud)	100	~20	~20
2		Descend to 100ft and run to 66.5N, 30W	140	~40	~60
3		Straight level run to 65.7N, 27.6W	75	~20	~80
4		Straight level run to 69N,17.75W	300	~90	~170
5		Profile ascent to 25 kft at 69.5N,17.75W		~	~
6		Dropsonde run to 69.5N,26W dropping sondes every 20 nm (8 sondes)	170	~30	~200
7		Straight level run to 69N,27W	40	~10	~210
8		Dropsonde run to 66.25N,23.1W dropping sondes every 20 nm (9 sondes)	190	~40	~250
9		Return to Keflavik	135	~30	~280



Mission Scientist's Log

Flight No B277 Date Mar 6 Name Moore Page 1 of 5

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
10:25					966 mb kefla vlc pressure
10:26					take off
10:30					light precip
10:31					volcano out RHS
10:35					ICH instability LHS
10:45					cloud top @ 1000ft
					choppy
10:48					into cloud
10:52					way point 1 @ 1300ft
					visibility poor
					low cloud
10:54					calibrate probe
10:55					start of run
11:06					slight change
					in track to
					avoid weather
11:03					back on track
11:05					force 8
11:12					vis poor clims
					to 1000 ft
					human drop ped
					good trigger

Mission Scientist's Log

Flight No B277 Date Mar 6 Name Moore Page 2 of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
11:28					may see icing on trailing edge
11:35					over MIZ
					7th climbpoint
					climb to 2000 ft
					return on same heading and then head north at 2000 ft to MIZ Dust jet core
11:51					start of new NB leg
11:59					Lost dewpoint
12:31					cloud clearing
12:33				6620	Tom estimates
				2539	sea state Force 9
12:34					Sea ice off LHS
12:35					saw tooth 500 – 3000 feet
					max core at ~2000 ft
12:50					sawtooth 500-3000
					max core still around 2000 ft
12:59					90% sea ice

Mission Scientist's Log

Flight No B.727 Date Mar 6 Name Moore Page 3 of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
13:00					VIS deteriorating
13:05					lower sea ice off
					RWS
13:06					reduced ice cover
					potential eddy
13:04					Beaufort Force 8
					more turbulence over
					open water
13:11					sawtooth 50 - 3000
					Force 4
					open water
13:19					saw tooth 500 - 3000
					over ice no
					change in turbulence
					45 m/s winds before
					start of sawtooth
13:30					end of MBley
					profile descent to
					500ft and climb
					out to dropsonde
					leg
13:35					3500 ft 20 m/s

Mission Scientist's Log

Flight No B277. Date Mar 6..... Name Moore..... Page 4... of .....

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
14:09					Dropsonde #1
					good launch
14:13					Dropsonde #2
					good launch
14:17					Dropsonde #3
					good launch
14:21					Dropsonde #4
					gravity wave LHS
					mountain wave RHS
14:25					DS #5
					good launch
14:28					chop due to
					gravity waves
14:29					DS #6
					good launch
14:32					DS #7
					good launch
14:36					DS #8 (end of 1st run
					good launch
14:44					DS #9
					good launch
14:49					DS #10 over MIZ
					good launch
14:54					DS #4 over MIZ

Mission Scientist's Log

Flight No B.277 Date Mar-6 Name Moore Page 5 of 5

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
14:54					DS #12
15:04					good launch
					DS #13
					good launch
15:04					DS #14
					good launch
15:14					DS #15
					good launch
					in high cloud
15:21					DS #16
					good launch
15:25					DS #17
					good launch
					End of science

Mission Scientist's Log

Flight No B277 Date 06.03.07 Name GNP Page 1 of 3.

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
10.27					Take off
10.31					easing down to 500ft.
10.44					Staying at FL010
10.46					adj to FL020
					Cloud tops. just below 20000 ft.
					and then higher
10.49					down to FL010
10.52					[redacted] point #1. 400
10.53					wnd speed 20m/s T 1.5°C
10 54		100 ft.			
11,02					slight change in track due
					to low visibility
					sea sft. Bearfort & swell lower than yesterday
11.07		150ft			
11.12					at freezing level.
11.12		1000ft			climbing. winds at FL010
11.35					Changing to jet core instead
					of fluxes due to v.i.s. droplet new waiPoint 66N 28°30" W
					66N 28°30" → 69N 21°30"
11.46					980 hPa at surf.
11.50	R2.2	2000ft			NE track Ref. old track ~25nm to the west.
12 02		2000ft			winds incr. to 30m/s 54° T
					prec.

Mission Scientist's Log

Flight No B277 Date 06.03.07 Name GNP Page 2 of 3

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
12.18		2000ft			winds picked up 33-35 m/s
—					but temp. seems to have stab at ~-2°C
—					turb probes tot. gone!
—					ice on inst. to the left.
12.32				67°18 N 25°36 W	sea state BF~9 clouds at top more than before
12 34					sea ice to the left.
12 35			saw		profile
12.37			teeth		crest being blow off BF 9 swell died down
		500ft			and then up to 3600ft.
1240					back to 2000ft.
1243					in jet core in 2000ft.
—					winds up to 40 m/s down to 30 above/below
1250					saw teeth ↓300 ↑3000
					wnd decr. rapidly 27 m/s 500ft.
1252					climbing
					wnd ↑ 37 m/s
					↓ 29 m/s 3000 ft.
1257					39 m/s 2000 ft. core
					1.5 cm or prolongs?
13.11					Saw teeth again BF 9
					troop 33 ~~up again~~; 29 ok
					~~climbed~~ increased to 39
					dropped to 31
1316					int. to 41 (2000 ft)

13.17 2000ft

Mission Scientist's Log

Flight No B277 Date 06.03 Name GNP Page 3 of 3

GMT	Run / Profile	Height	Hdg	GPS Position	Remarks (clouds, weather, visibility, winds, sea state etc.)
13.19					Profile 4. 986 QNH
—					wind 45 m/s.
13.20		500			↓ 29
					↑ 43 (2000 ftH) ↓26 (300 ftH)
13 24.		2000 ft			↑ 40 (2000 ft), (42)
					fetch 2-300 m at sea ice F(ounds)
13.30					wind starting to decr. (35 m/s)
13. 30					saw teeth 5
13 37					↓ 32 (29) 500 ft.
					↑ 37 ↓ 19 (55) FL050?
14 09 23		25 kft			DS1 gate 930 hPa 32 m/s. T= -13 940
14.13.28					DS2 jet/ice 920 hPa 37 m/s T= -16
14.17.28					DS3 jet 35 m/s 920 T=-16 930 920
14.21					DS4
14.25					DS5
14 29					DS6
14 32					DS7 landed at 1600 ft
14. 36					DS8.
1					
14.44					DS9.
14.49					DS10
14.54					DS11
14 59					DS12
15 04					DS13
15. 09					DS14
15. 15					DS15
15 20					DS16
15 25					DS17
16.00					LANDING (45kt 33km)

CLOUD PHYSICS LOG

Flight No. B277 **Date: 06/03/07** **Operator: KFT** **Page 1 of 1**

G.M.T.	PCASP		FSSP	SID1	2D2-C			2D2-P			Remarks
DRS Time	Conc/cc	Mean R	Block Transfer	Particle Count	Conc/L	Max Size	Habit	Conc/m3	Max Size	Habit	
10:27	Vref=6.8										First 2DC images
10:30											First 2DP images
10:50:00	529	0.24	112	-	23	150	8,11	8	200	8	FL038 MS02
10:55:00	345	0.08	158	-	0	0		0	0		FFSSP bases incr'd
11:00:00	195	0.10	162	-	3	650	2,8,5	341	3200	2	T=PS01 100FT
11:05:00	156	0.11	166	-	7	550	2,5,8	260	1600	2	T=PS00
11:10:00	459	0.13	174	-	66	800	2,5,8	1800	4800	3	T=MS00
11:13:00	602	0.29	203	-	140	800	8,3	10380	3200	3	T=MS05, 1000FT
11:15:00	118	0.22	285	-	93	800	8,5	4316	4800	3	Heaters ON
11:20:00	96	0.30	428	-	112	800	3,8	4500	4800	3	
11:25:00	112	0.18	523	-	86	625	1,8	17000	1200	8	
11:30:00	129	0.22	625	-	135	750	8	12468	1600	8	
11:34:00	229	0.18	636	-	32	675	3,8	2566	4800	3,8	1000FT
11:35:30	254	0.09	649	-	81	800	3,8	3391	6400	3	2000FT
1137:48	245	0.07	674	-	22	800	8,3	2675	3200	3,8	Start run 2.1 2000FT
11:40:00	334	0.09	702	-	134	800	8	22350	1200	8	
11:45:00	77	0.10	773	-	25	425	8,1	2341	4800	3	T=MS08
11:50:00	100	0.26	919	-	75	800	3,8	2591	4800	3	
11:51:27	160	0.15	960	-	32	800	3,8,5	2675	5500	3	Start run 2.2 2000FT
11:55:00	118	0.14	1099	-	115	800	3,8	3366	6400	3	
12:00:00	114	0.14	1688	-	65	800	8,5,11	1275	1200	5,8	
12:04:00	323	0.16	1915	-	225	800	1,5,8	10658	1200	5,8	T=MS09
12:10:00	100	0.17	2569	-	102	675	5,1,8	2241	1200	5	
12:15:00	316	0.11	3173	-	161	175	1,11	116	1600	5,8	T=MS08
12:20:00	97	0.14	3792	-	68	675	11,3,1	214	3200	3,5	T=MS08
12:25:00	181	0.13	4362	-	121	350	1	1750	1200	5	T=MS07
12:30:00	171	0.14	4649	-	60	175	1,11,8	1133	1200	5	T=MS08;FFSSP BASES INCR'D
12:35:00	154	0.08	4835	-	0	0		0	0		End run 2.2
12:38:00	80	0.09	4847	-	5	200	8,11	0	0		500FT bottom of Sawtooth
12:40:44	114	0.24	4882	-	51	100	11	0	0		3000FT top of Sawtooth
12:42:24	159	0.09	4914	-	0.5	200	11	0	0		2000FT start run 2.3
12:45:00	89	0.10	4926	-	0	0		0	0		
12:50:00	97	0.08	4942	-	0	0		0	0		
12:52:26	173	0.07	4943	-	1.5	100	11	0	0		

CLOUD PHYSICS LOG

Flight No. B277 **Date: 06/03/07** **Operator: KFT**

G.M.T.	PCASP		FSSP	SID1	2D2-C			2D2-P			Remarks
DRS Time	Conc/cc	Mean R	Block Transfer	Particle Count	Conc/L	Max Size	Habit	Conc/m3	Max Size	Habit	
12:55:04	152	0.17	4963	-	147	150	11	8	800	11	Top of Sawtooth at 3000FT
12:56:44	91	0.08	4977	-	0	0		0	0		Start run 2.4 at 2000FT
13:00:00	83	0.08	4985	-	0	0		0	0		
13:05:00	83	0.09	5007	-	0.5	100	11	05	200	11	
13:10:00	97	0.09	5020	-	1.5	500	8	8	1200	8	
13:13:50	67	0.09	5028	-	11.5	600	8,3	1800	2400	8	Bottom sawtooth at 500FT
13:15:58	46	0.12	5047	-	59	150	11	16	800	8	Top sawtooth at 3000FT
13:17:48	160	0.10	5050	-	3	500	8,11	33	800	8	Start Run 2.5 at 2000FT
13:20:43	116	0.12	5052	-	24	800	3,5	5508	3200	3,8	Bottom Sawtooth at 500FT
13:22:34	82	0.11	5056	-	125	225	1,8	158	225	8	Top sawtooth at 3000FT
13:24:04	131	0.10	5065	-	34	250	1	208	250	8	Run 2.6 at 2000FT; T=MS08
13:30:00	155	0.13	5071	-	21	325	1	2691	325	1	End Run
13:32:30	207	0.09	5083	-	17	700	3	2650	3200	3	BOTTOM Sawtooth at 500FT
13:34:05	110	0.22	5098	-	83	100	11	58	3200	3,11	FL030
13:35:00	74	0.21	5161	-	27.5	100	11	66	100	11	FL040
13:35:41	48	0.07	5170	-	0	0		0	0		FL050
13:36:36	26	0.09	5195	-	0	0		0	0		FL060
13:37:36	42	0.06	5195	-	0	0		0	0		FL070
13:38:39	39	0.07	5195	-	0	0		0	0		FL080
13:39:50	37	0.07	5195	-	0	0		0	0		FL090
13:40:51	45	0.08	5195	-	0	0		0	0		FL100
13:41:51	42	0.07	5195	-	0	0		0	0		FL110
13:42:48	22	0.07	5195	-	0	0		0	0		FL120
13:43:49	68	0.07	5195	-	39	675	3,8	4250	2400	3	FL130
13:44:54	464	0.08	5198	-	55.5	800	8,3	10425	1200	3,5	FL140
13:46:01	54	0.37	5202	-	47	800	8,3	14341	1200	3,8	FL150
13:47:03	115	0.30	5207	-	71	800	8	12958	1200	8	FL160 – CORE CHEM CAP!!
13:49:03	145	0.41	5215	-	76	425	8,	26683	1200	8	FL180
13:50:03	22	0.14	5220	-	46	525	8,9	30550	1200	8	FL190
13:51:04	109	0.44	5226	-	106	500	8,4,9	NOISE			FL200 2dp DATA RATE 1HZ
13:52:06	11	0.08	5229	-	25.5	500	8,4,9	NOISE			FL210
13:53:27	25	0.19	5230	-	26	525	8,4,9	NOISE			FL220
13:54:31	22	0.15	5232	-	24	575	8,9,4	NOISE			FL230

CLOUD PHYSICS LOG

Flight No. B277 **Date: 06/03/07** **Operator: KFT**

G.M.T.	PCASP		FSSP	SID1	2D2-C			2D2-P			Remarks
DRS Time	Conc/cc	Mean R	Block Transfer	Particle Count	Conc/L	Max Size	Habit	Conc/m3	Max Size	Habit	
13:55:39	13	0.11	5233	-	26	350	9,8,4	NOISE			FL240
13:56:52	16	0.10	5234	-	32	350	9,4,8	NOISE			FL250
14:04:00	16	0.42	5249	-	12	775	9,4,5	NOISE			1st CIP DATA!!
14:09:24	13	0.21	5256	-	39	500	9,8,4	NOISE			SONDE 1; FFSSP BASES INCR
14:13:30	6	0.08	5262	-	23	200	11,8	NOISE			SONDE 2; CIP FELL OVER
14:17:29	21	0.07	5271	-	22	15	11,8	NOISE			SONDE 3
14:21:18	31	0.08	5272	-	0	0		NOISE			SONDE 4
14:25:09	25	0.06	5272	-	0	0		NOISE			SONDE 5
14:28:59	52	0.06	5272	-	0	0		NOISE			SONDE 6
14:32:45	65	0.06	5272	-	0	0		NOISE			SONDE 7
14:36:24	59	0.06	5273	-	0	0		NOISE			SONDE 8
14:37:30	101	0.06	5273	-	11.5	100	11,8	NOISE			CIP RESTARTED
14:44:03	111	0.07	5276	-	0	0		NOISE			SONDE 9
14:49:13	158	0.06	5276	-	0	0		NOISE			SONDE 10
14:54:02	173	0.06	5276	-	0	0		NOISE			SONDE 11
14:59:03	215	0.06	5276	-	0	0		NOISE			SONDE 12
15:04:17	199	0.06	5277	-	5	300	11,8	NOISE			SONDE 13
15:09:34	206	0.06	5280	-	70	200	11,8	NOISE			SONDE 14
15:14:48	197	0.06	5290	-	5.5	300	11,8	NOISE			SONDE 15
15:20:08	211	0.06	5292	-	1.5	100	11,8	NOISE			SONDE 16
15:25:31	198	0.06	5298	-	52.5	175	11,8	NOISE			SONDE 17
15:28											FFSSP RESTARTED
15:30:00	293	0.06	105	-	100	225	11,8	NOISE			FFSSP RESTARTED AGAIN!!
15:35:00	196	0.12	0	-	126	550	8,9	NOISE			
15:40:00	223	0.07	79	-	58	225	8,11	NOISE			
15:40:40	238	0.07	81	-	251	225	8,11	NOISE			FL230
15:41:15	259	0.07	83	-	109	200	8,11	NOISE			FL220
15:41:49	318	0.07	85	-	158	250	8,11	NOISE			FL210
15:42:20	238	0.07	88	-	111	275	8,11	NOISE			FL200
15:42:57	214	0.06	88	-	34	300	8	NOISE			FL190
15:44:00	216	0.06	90	-	12	300	8	NOISE			FL180
15:44:35	282	0.06	90	-	1	300	8	NOISE			FL170
15:46:20	287	0.06	96	-	2	300	8	NOISE			FL130

CLOUD PHYSICS LOG

Flight No. B277 **Date: 06/03/07** **Operator: KFT**

G.M.T.	PCASP		FSSP	SID1	2D2-C			2D2-P			Remarks
DRS Time	Conc/cc	Mean R	Block Transfer	Particle Count	Conc/L	Max Size	Habit	Conc/m3	Max Size	Habit	
15:46:53	290	0.06	97	-	100	300	8,3	NOISE			FL120 CORE CHEM CAP OFF
15:47:20	302	0.06	100	-	0	0		NOISE			FL110
15:48:08	343	0.06	Hung	-	0	0		NOISE			FL100
15:49:21	235	0.11	-	-	0	0		NOISE			FL080
15:50:04	194	0.06	-	-	0	0		NOISE			FL070
15:50:30	202	0.06	-	-	0	0		NOISE			FL060
15:51:23	131	0.06	-	-	0	0		NOISE			FL050

CLOUD PHYSICS PROCESSING LOG

Flight number: **B277** **T/O:** 10:27:04
Date of flight: 06/03/07 **Land:** 15:58:36

A) **FFSSP PROCESSING** To Exeter		
Processing Stage	Done?	Comments
1) Transfer *.txt files from DVD to processing PC		
Bnnn_FFSSP_hh.txt for each hour of data		**hh =**
Bnnn_FFSSP_HVMS.txt		**Last sec processed =**
2) FTP the files (ascii) from the PC to directory PMSDATA: on FLOODS		**File size =**
3) FLOODS> **RUN MRFB:[PMS.FAST_FSSP]FSSP_EXTRACT_TAS**		Use time just before/after take-off/landing. If T/O /landing just after/before the hour, ensure start/end time is before/after the hour if there is an FFSSP_hh.txt file for that hour.
a) Flight number: **Bnnn**		
b) Path name: **MFDDATA:Bnnn_MFDX**		
c) Output directory: **PMSDATA:**		
d) Start time: *0 if unknown (see comment box)*		
e) End time: *240000 if unknown*		
4) FLOODS> **RUN MRFB:[PMS.FAST_FSSP]FFSSP_PROCESS_TXT**		
a) Flight number: **Bnnn**		
b) Directory: **PMSDATA:**		**Total glitches =**
c) TAS in processing: **Y**		**Sec file written ok?**
d) Vel threshold (clicks) **0**		
e) Calibration file: *Use the most recent calibration file.* Format FFSSP_CALddmmyyyy.txt Calibration files to be stored in MRFB:[PMS.FAST_FSSP]		**Note calibration file used**
f) Adjust FFSSP time **Y/N**		Yes only if gross errors occur
g) If Y, enter value to add to data time (seconds)		in FFSSP time eg; ~ 1hour
5) FLOODS> **WAVE**		Use PVWAVE for this section
a) WAVE> **write_procffssp_to_m5,'pmsdata:Bnnn_procffssp.dat', 'mfddata:Bnnn_mfdX','pmsdata:Bnnn_m5procffssp',/auto**		**Note time correction applied to FFSSP by /auto =**
b) WAVE> **exit**		
6) FLOODS> **MODIFY**		
a) Modifying datasets: **pmsdata:Bnnn_m5procffssp**		**Input file size =**
b) Dataset: **mfddata:Bnnn_mfdX**		**M5 output file size =**
c) New dataset: **mfddata:Bnnn_mfdY (y=x+1)**		
d) Parameter description file: *leave blank to use default*		
7) CHECKS:		
i). Are FFSSP and JW/Nevzorov LWC synchronized in time? *In flight_plot, parameters* *JW LWC para 535* *Nevzorov LWC para 602* *FFSSP LWC para 1202*		**Synchronized?**
ii). If not, repeat from step 5b replacing /auto with **addt=x** which adds x+20 secs to FFSSP time.		

CLOUD PHYSICS PROCESSING LOG

Flight number: **B277**
Date of Flight: 06/03/07

B) 2D PROCESSING		REPROCESS +1hr
Processing Stage	Done?	Comments
1) Transfer Bnnn.dat file from CD/DVD to PC	Y	
2) Zip up file on PC (Bnnn.zip)	Y	
3) FTP the zipped file (binary) from the PC to the directory SEADAS_DATA:[SEADAS_DATA] on FLOODS	Y	94296 blocks
4) Log on to FLOODS		
5) Unzip SEADAS_DATA:[SEADAS_DATA]Bnnn.zip	Y	**Size of Bnnn.dat = 534415**
6) FLOODS> **WAVE** WAVE> **CONVERT_SEADAS_FILE** a) Input file: **SEADAS_DATA:[SEADAS_DATA]Bnnn.dat** b) Output file: **SEADAS_DATA:[SEADAS_DATA]Bnnn_seadas.dat** WAVE> **exit**	Y	Use PVWAVE for this section **Blocks read = 88283** **Blocks written = 88283** **Bad reads = 0**
7) FLOODS> **RUN MRFB:[PMS.SEADAS]READM200_FILE** a) Default directory: **PMSDATA:** b) Flight number: **Bnnn** c) Disk file name: **SEADAS_DATA:[SEADAS_DATA] Bnnn_seadas.dat** d) Comment string: e) Start time: *0 if unknown (T/O – 5 min)* f) End time: *240000 if unknown (Land + 5 min)* g) Read 2DC: **Y** h) Read 2DP: **Y** i) Secondary data: **Y** j) FSP-SYNC: Y k) cmd.str: **Y** l) Auto time correction: **N** m) Full length secondary:**N**	Y	 **Start = 102500** **End = 160000** Ignore error message scroll (vestigial error from tapes) **Are FRW, FSP, IMB, PCA,SEC files in PMSDATA? Y** **Are they non-zero in size? Y**
8) FLOODS> **WAVE** i). WAVE> **imagedisplay** a) 2D directory name: **PMSDATA:** b) Flight number: **Bnnn** c) Time from IWC plot: **N** d) Select probe: (**1**) 2DC (**2**) 2DP e) Start time: *As in 7e above* f) End time: *As in 7f above* g) Time interval (sec): **5** recommended (0 for all images) ii). WAVE> **auto_image** a) 2D directory name: **PMSDATA:** b) Flight number: **Bnnn** c) Enter date: **YYYYMMDD** d) Enter start time: *0 if unknown (T/O – 1 min)* e) Enter end time: *240000 if unknown (Land – 1 min)* f) Enter time interval (sec) between successive imaged blocks: **10** iii). WAVE> **exit** to create files iv). FTP ascii *.PS files from PMSDATA: to PC v). Load each into Ghostview or other pdf-converter vi). Output as pdf file (720 dpi resolution), appending name prefix of **CORE-CLOUD-PHY_** to converted files	Y	2D image display and printing Must be done from FLOODS itself. **Note any problems with images** Noise on 2DP from 13:50 Prepare imagery for Core data From own PC again **Start = 102500** **End = 160000, (135000 2DP)** FAAM_YYYYMMDD_R0_ Bnnn_2Dx-images.ps Notes on this in instructions

9) FLOODS> **RUN MRFB:[PMS.SPEC2D.AUTO]PROCESS2D_AUTO** a) Flight number: **Bnnn** b) Directory: **PMSDATA:** c) File generation: *Hit enter* d) Time correction: *Time offset of the 2D data* e) TAS: **Y** f) MFD directory: **MFDDATA:Bnnn_MFDX** g) Probe number: (**1**) 2DC (**2**) 2DP (**0**) Both *0 unless either probe known to be faulty* h) Start time: *0 if unknown (T/O + 30sec)* i) End time: *240000 if unknown (Land – 30sec)* j) Nominal averaging: **0.2** seconds for conversion to M5 k) Particle type 2DC: **8** if known to be in ice cloud **11** if known to be in water cloud l) Particle type 2DP: **8** if known to be in mixed-phase **8** if unknown m) Coefficient choice: **2** n) Output root filename: **PMSDATA:Bnnn_PROC2D**	Y	NB. an error message may appear, floating point exception, rerun and use time quoted in error message, repeat until successful. **X = A** **Start = 102500** **End =** 160000 **Time data processed to =** **2dproc files present?** *.2dc, *.2dp and *.dat
10) FLOODS> **WAVE** i) WAVE> **WRITE_PROC2D_TO_M5, 'PMSDATA:BNNN_PROC2D.DAT', 'PMSDATA:BNNN_M5PROC2D'** ii). **exit**	**Y**	Use PVWAVE for this section Error message about HDDR file should be ignored. **Records = 30469, 178**
11) FLOODS> **MODIFY** a) Modifying datasets: **pmsdata:Bnnn_m5proc2D** b) Datset: **mfddata:Bnnn_mfdX** c) New dataset: **mfddata:Bnnn_mfdY** d) Parameter description file: leave blank to use default	**Y**	**X = B** **Y = (X+1) = C**
12) CHECKS: Are 2DC/2DP IWC of comparable magnitude and well-correlated with Nevzorov TWC? *In flight_plot, parameters* *Nevzerov TWC para 605* *2DC IWC para 1302* *2DP IWC para 1312*	Y	**Correlated? Y**

CLOUD PHYSICS PROCESSING LOG

Flight number: **B277**
Date of Flight: 06/03/07

C) PCASP PROCESSING		
Processing Stage	Done?	Comments
1) Complete stage 7) in 2D processing Ensures Bnnn_FSP.DAT containing raw PCASP data is written to directory PMSDATA:	Y	
2) FLOODS> **RUN MRFB:[PMS.PCASP]PROCPCASP_NEW** a) Flight number: **Bnnn** b) File name: **PMSDATA:Bnnn_FSP.DAT** c) Root output name: **PMSDATA:Bnnn_PROCPCASP** Produces PMSDATA:Bnnn_PROCPCASP.DAT (binary) PMSDATA:Bnnn_PROCPCASP.OUT (ascii) d) Minimum size channel: *default = 1* *If smallest size channel are known to be noisy the value of the highest noise free channel to be entered here* e) Calibration volume flow rate: *Use the most recent value. 1.8ccs^{-1}* *Calibration files to be stored in **Exeter*** *Entering zero gives default value = 1.0 cm^{3}s^{-1}* f) Time correction: *Same value as used in 2D processing stage 9d* g) Start time: *0 if unknown* h) End time: *240000 if unknown*	Y	**Min size = 1** **Vol flow rate =** 1.15
3) FLOODS> **WAVE** i).WAVE> **write_procpcasp_to_m5, 'pmsdata:Bnnn_procpcasp.dat', 'pmsdata:Bnnn_m5procpcasp'** ii). WAVE> **exit**	Y	Use PVWAVE for this section
4) FLOODS> **MODIFY** a) Modifying datasets: **pmsdata:Bnnn_m5procpcasp** b) Dataset: **mfddata:Bnnn_mfdX** c) New dataset: **mfddata:Bnnn_mfdY** d) Parameter description file: *leave blank to use default*	Y	**X = A** **Y = X+1 = B**
5) CHECKS Are PCASP and NEPH peaks synchronous? *In flight_plot, parameters* *Neph total blue scatter* *PCASP conc para 1550*	Y	**Merged OK? Y**

FAAM Dropsonde Flight Log

Flight No.	B277	Date	06/03/2007
Page No.	1 of 2	Operator	SWH

GMT	**Sonde No.**	**Event**	**Comments**
		e.g. launch, splashdown	*e.g. windata? PTH data? Lat/Long*
140924	1	Launch	375.70 -41.00 75.85 158.10 17.70 -14.40 -19.028700 69.525700 7626.10 0
141827	1	Land	990.54 -9.61 91.55 353.08 21.14 -11.24 -19.212240 69.514182 452.65 9
141330	2	Launch	375.60 -41.20 71.82 164.10 18.70 -14.90 -20.035200 69.539200 7627.30 0
142225	2	Land	993.38 -10.93 89.24 354.19 24.14 -11.96 -20.204593 69.522456 457.21 10
141730	3	Launch	375.50 -41.60 68.66 178.10 17.60 -13.10 -21.032200 69.546800 7629.80 0
142623	3	Land	994.41 -10.51 83.68 2.38 29.26 -10.48 -21.194584 69.525583 465.34 11
142118	4	Launch	375.70 -42.00 61.40 187.80 16.50 -12.70 -22.026600 69.548400 7624.90 0
143047	4	Land	994.91 -9.05 86.18 16.09 24.28 -10.05 -22.205249 69.510989 475.68 9
142509	5	Launch	375.80 -42.90 50.46 164.00 16.40 -13.70 -23.024400 69.544700 7623.00 0
143348	5	Land	991.73 -3.62 56.69 25.22 20.97 -10.60 -23.204268 69.507796 485.78 11
142900	6	Launch	375.60 -44.20 42.00 151.20 5.20 -12.50 -24.024100 69.535300 7626.70 0
143700	6	Land	912.46 -6.96 47.11 342.63 22.20 -19.87 -24.173953 69.503037 1145.34 10
143245	7	Launch	375.40 -44.50 36.77 60.60 10.80 -12.70 -25.016800 69.520300 7631.10 0
144103	7	Land	936.57 -2.88 39.15 7.84 10.43 -11.76 -25.170345 69.478602 955.74 11
143624	8	Launch	375.30 -45.40 49.00 38.60 11.10 -12.50 -26.003800 69.498900 7632.20 0
144256	8	Land	814.99 -14.55 77.90 312.07 11.32 -16.01 -26.129209 69.468766 2048.89 11
144406	9	Launch	375.50 -45.50 67.64 62.10 16.40 -13.30 -27.094800 68.971600 7628.80 0
145201	9	Land	915.92 -3.13 40.54 344.59 12.22 -13.46 -27.242651 68.931669 1125.11 12
144915	10	Launch	375.90 -44.30 41.47 73.50 16.30 -12.30 -26.255400 68.624900 7622.40 0
145810	10	Land	988.25 -3.45 64.07 68.15 11.80 -11.40 -26.463011 68.573316 504.28 13
145403	11	Launch	375.70 -42.60 33.34 115.80 15.60 -13.50 -25.616600 68.304800 7624.90 0
150304	11	Land	987.48 -4.34 63.01 50.86 16.92 -10.36 -25.814893 68.263853 511.77 13
145903	12	Launch	375.70 -42.60 36.20 128.60 16.40 -13.40 -25.007200 67.980400 7625.10 0
150742	12	Land	987.65 -5.50 71.64 38.95 25.28 -10.56 -25.203784 67.943812 503.30 10
150418	13	Launch	375.70 -41.90 69.34 128.40 20.20 -13.60 -24.407400 67.649700 7625.30 0
151319	13	Land	985.58 -6.31 85.03 36.20 32.17 -12.17 -24.602969 67.619133 508.96 6

150936	14	Launch	375.50 -41.70 74.89 117.20 21.40 -13.40 -23.824600 67.317400 7629.80 0
151822	14	Land	983.59 -3.92 87.83 25.98 27.28 -11.26 -24.011252 67.285781 507.69 9
151448	15	Launch	375.50 -40.80 74.28 116.00 20.60 -13.00 -23.263600 66.986000 7628.50 0
152355	15	Land	981.33 -4.62 95.65 30.84 29.40 -12.70 -23.459725 66.946792 511.22 10
152009	16	Launch	375.60 -40.40 66.05 120.50 20.30 -13.30 -22.713200 66.650600 7627.60 0
152853	16	Land	978.92 -3.50 96.31 17.66 22.71 -10.97 -22.900156 66.610684 524.09 12
152533	17	Launch	375.70 -40.10 72.08 119.50 19.30 -13.70 -22.164900 66.313600 7626.10 0
153352	17	Land	924.09 -5.06 90.17 287.91 3.22 -11.16 -22.327156 66.275477 976.00 6

Flight: B277

KEY

- Not Fitted
- Fitted, Not Operated
- Duff Data
- Minor Problems
- OK

Thermometers
- Cabin Temperature:
- Heimann:
- Deiced Temp:
- Non-deiced Temp:

Hygrometers
- FWVS:
- General Eastern:
- Johnson Williams:
- Nevzorov:
- Total Water Probe:

Cameras
- Downward Facing:
- Forward Facing:
- Rearward Facing:
- Upward Facing:

Navigation + Aircraft
- Cruciform GPS:
- GIN Applanix:
- INU Honeywell:
- Radar Altimeter:
- RVSM IAS:
- RVSM Static Pressure:
- XR5 GPS:

Report Created 15/03/2007 12:14:33

Misc Core
- AMTG:
- AVAPS:
- Cabin Pressure:
- Fax machine:
- Printer:
- S9 Static Pressure:
- Satcom C:
- Satcom H:
- Turb Centre-Static:
- Turb Left Right:
- Turb Up-Down:
- Turb Horizontal Chk:
- Turb Vertical Chk:
- Weather Radar:

DLUs:
- DLU AERACK:
- DLU BBR Lower:
- DLU BBR Upper:
- DLU Core Chem:
- DLU Core Consoles:
- DLU Port Aft:
- DLU Port Fwd:
- DLU Stbd Fwd:

Radiometers
Lower:
- BBR (clear) Lower:
- BBR (IR) Lower:
- BBR (red) Lower:

Upper:
- BBR (clear) Upper:
- BBR (IR) Upper:
- BBR (red) Upper:

- ARIES:
- DEIMOS:
- IR Camera:
- JNO2 Lower:
- JNO2 Upper:
- JO1D Lower:
- JO1D Upper:
- MARSS:
- SHIMS Lower:
- SHIMS Upper:
- SWS:
- TAFTS:

Last Updated: 14/03/2007 15:55:48

Cloud Probes
- 2DC:
- 2DP:
- FFSSP:
- PCASP:

- ADA:
- CCN:
- CDP:
- CIP 100:
- CIP 25:
- CPI:
- CVI:
- SID1:
- SID2:

Aerosol
- CPC 3025A:
- Filters 47mm:
- Filters 90mm:
- Neph - Dry:
- Neph - Wet:
- PSAP:
- AMS:
- CPC 3025 (AMS)
- INC:
- VACC:
- CPC 3010A (CVI):

Chemistry
- CO Aerolaser 5002:
- NOx TE42C:
- Ozone TE49C:
- Ozone TE49:
- SO2 TE43C:
- TDLAS (NIR) CH4:
- TDLAS (NIR) CO2:

- FAGE:
- Formaldehyde:
- NOxy:
- ORAC:
- PAN:
- PERCA:
- Peroxide:
- PTRMS:
- TDLAS (1C):
- WAS Bags:
- WAS Bottles:

Misc Non-Core
- CASI/ATM:
- LIDAR:
- LTI:
- SAW Hygrometer:

Faults / Incidents Log

Flight No. B277
Date: 06 March 2007

Instruments

1. Turb Probe – AOA Check and Diff and AOSS Check indicating icing at 1129Z, upper and lower ports and side ports likely to be frozen.

2. Non DeIced Temperature Probe and General Eastern likely to have frozen up.

3. Flight Managers display – locked up at 1300 when updating fltsumm, rebooted then okay.

4. AMTG – not returning status to HORACE

5. Flight Manger's laptop – displays disappeared and screen went white. Couldn't reset it so rebooted.

Aircraft

Nil

Satcom-H Calls

Nil

Post Flight - Turb Probe Water Traps

1. Indicate Amount of Water: a) Nil b) 1-2 drops c) ¼ full or more d) Ice present
2. Emptied by:
3. Dried by:

Flight Manager's Data Processing Status

Flight No: B277 Date of flight: 06/03/07
Flight Manager: MS

Mfd data must be backed up within a week.
If it can't be done by the Cloud Physics Operator in that time the FM must back it up

On day of flight		
Action	**Link / Option**	**Date**
Update Database & Note BBR Fit	Database	09/03/07
Create Fltcons & check BBR fit	Option 9	08/03/07
Transfer & process Data	Option 2	08/03/07
Ftp qldata to BADC	project_spaces/faam/ quicklook	09/03/07
Check Rawdata	flight_plot	08/03/07
Raw data to BADC	Option 7	09/03/07
Copy & Convert Fltsumm file	Copy from optical to fltsumm directory Set def fltsumm run tarexec:convert_summ	08/03/07
Edit Fltsumm/ send to BADC	Option 10	09/03/07
Copy Flight logs to Seagate	Flight Logs	09/03/07
Download photos, clear camera & email Doug	To Flight Logs and Turb Probe Photos	09/03/07
Ftp CGPS.bin file to BADC	project_spaces/faam/ javad_gps	09/03/07
Check MFDdata	flight_plot	08/03/07

On day after flight		
Action	**Link / Option**	**Date**
Ftp PSAP to FLOODS	Bnnn_psap_data	n/a
Merge PSAP into mfddata	wave .run mergepsap bnnn_mfda (b,c)	n/a
Record any MFD changes	edit mfddata:mfddata.txt	n/a
NETCDF to BADC	Option 4	09/03/07
Upload .nc from BADC	To USB stick (WS_FTP Pro)	09/03/07
Data quality check	Run Checkg on Linux pc	09/03/07
Ftp quality file to BADC	/incoming/faam/campaign-processed-core	09/03/07
Print out quality file	put in Faults Book	
Backup raw data to optical then to firesafe	Option 6	09/03/07
Backup mfd if Cloud Physics Operator can't	MFD Backup Instructions.doc	
Ftp mfd to BADC	Not yet set up	
Video tapes to PI or cupboard	Video Tape Log	09/03/07
Complete & save this form	**Data_Processing_ Logs**	09/03/07

Pre-Flighter's Log

Date: B277 Flight No: 6/8/07 Pre-Flighter: AMJ

Item	√ or x	Location	Action	Comments
1	✓	Hangar	Collect Dustbin, put on a/c	
		Aircraft Cabin		
2	✓	Core Chemistry	Gases x 3 ON	
3	✓	Cabin	All Racks Checked	
4	✓	Fwd CorCon	All reqd CBs made	
5	✓	Aft CorCon	CBs made, PCs ON	
6	✓	HORACE	Optical Disk loaded	
7	✓	HORACE	Recording data	
8	✓	HORACE	DLU Status Checked	
9	✓	HORACE	HORACE Status Checked	
10	✓	Satcom H	Power LED ON	
11	✓	Nevzorov	Checked and OFF	
12		GPS	Checked	IN HANGAR - NO SATELLITES
13	✓	INU	Align	TO LAST GOOD GPS
14	✓	Cameras Pictures	Checked x 4 OK	
15	✓	Core Chemistry	Instruments Checked OK	
16	✓	Core Chemistry	CO Flows Checked OK	
17	~	FWVS	Set up	
18	✓	Video x 2	Records okay, Rewind	
19	✓	Delced Rosemount	Heater Checked / Set	
20	✓	Heimann	Calibration Checked	
21	✓	TWC	ON & Checked	SOURCE NOT READY...
22	✓	GE	Balance checked	
23	✓	INU	Navigate then back to Align	
24	✓	Hubs x 4	Checked ON	
25	✓	Fwd Console	Miss. Sci Laptop CB made	& CB on Port Fwd SSP
26	✓	CNC	Butanol filled	
27	✓	CGPS	Set up	
28	✓	Miss. Sci Laptop	Checked Onboard	
	✓	WEATHER RADAR	SET UP	

External Checks overleaf →

Pre-Flighter's Log

Item	√ or x	Location	Action	Comments
		External		
29	✓	Turb Probe	Clean if reqd, Photo taken	
30	✓	JW	Cleaned & Checked	
31	✓	DI Rosemount	Cleaned & Checked	
32	✓	NDI Rosemount	Cleaned & Checked	
33	✓	Nevzorov	Cleaned/windings checked	
34	✓	GE	Cleaned & Checked	
35	✓	Lower BBRs	Domes cleaned/checked	
36	✓	Camera Windows	Cleaned	
37	✓	Heimann	Lens checked OK	
38	✓	TWC Cover	Fitted if required	
39	✓	All other covers	Removed	
40	✓	Dustbin	Returned to hangar	
41	✓	Tools	Check ALL in Toolkit	
42	✓	Tools	Avalon informed	

		Avalon Checks	Signed
43	✗	Upper BBRs Checked & Cleaned	
44		ICEX applied	NOT DURING PREFLIGHT
45	✓	Traps empty (weekly only)	

LEFT OPEN WITH CHEM HEATERS.

MISSING LOG SHEETS:

The following log sheets are not available for flight B277:

Log	Reason
De-brief	Sortie De-brief yet to be created by Kent Moore
Core Chemistry	no In Flight log except in cases of instrument problems

Document control

Revision	Date	Author	Comments
r0	10 Oct 2007	Doug Anderson	Initial version missing the above noted logs
r1			
r2			

VIDEO RECORDINGS:

2 x Forward Facing Cameras
2 x Rearward Facing Cameras
4 x Downward Facing Cameras

Digital8 video recordings from this flight reside with :

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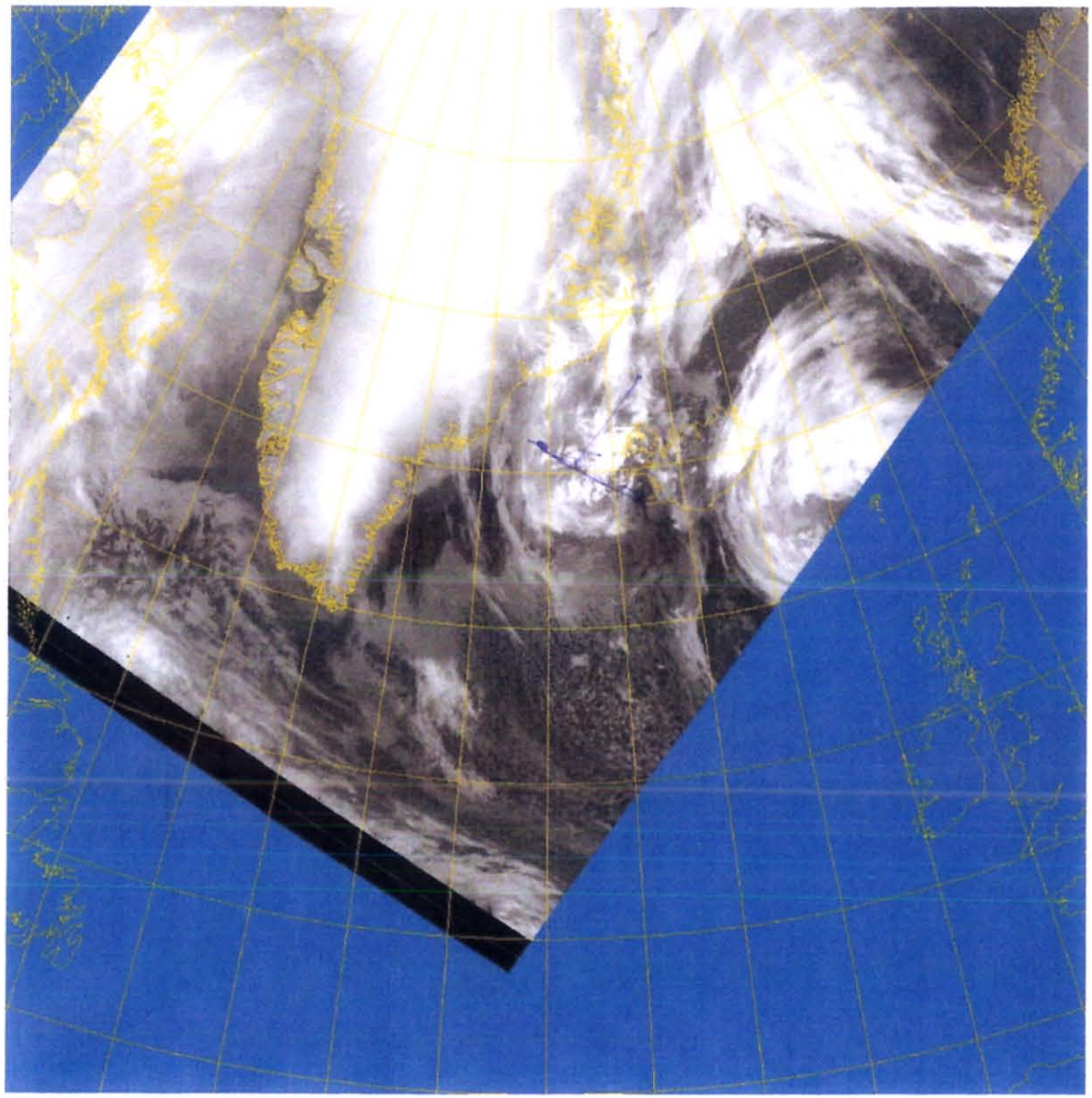
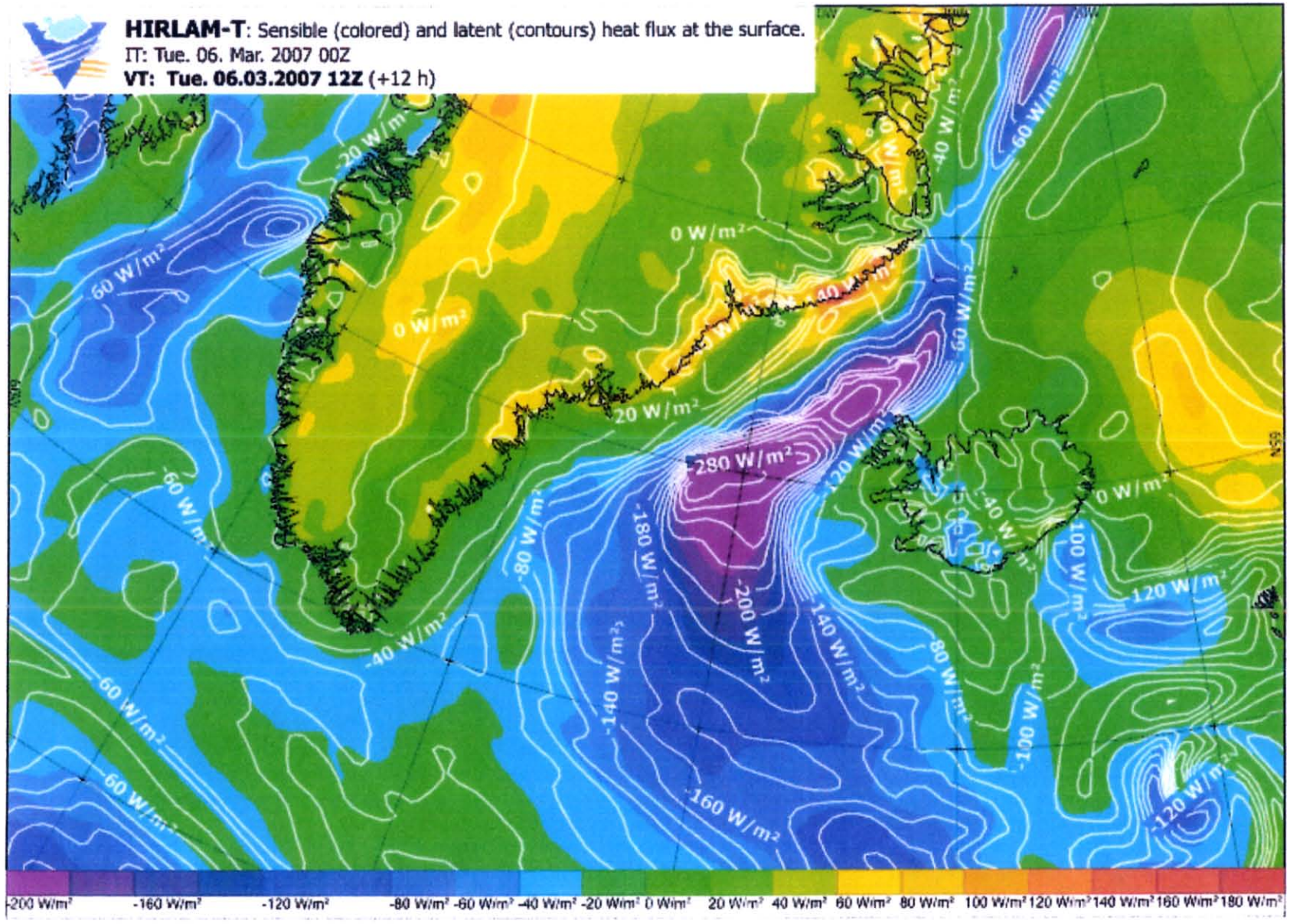
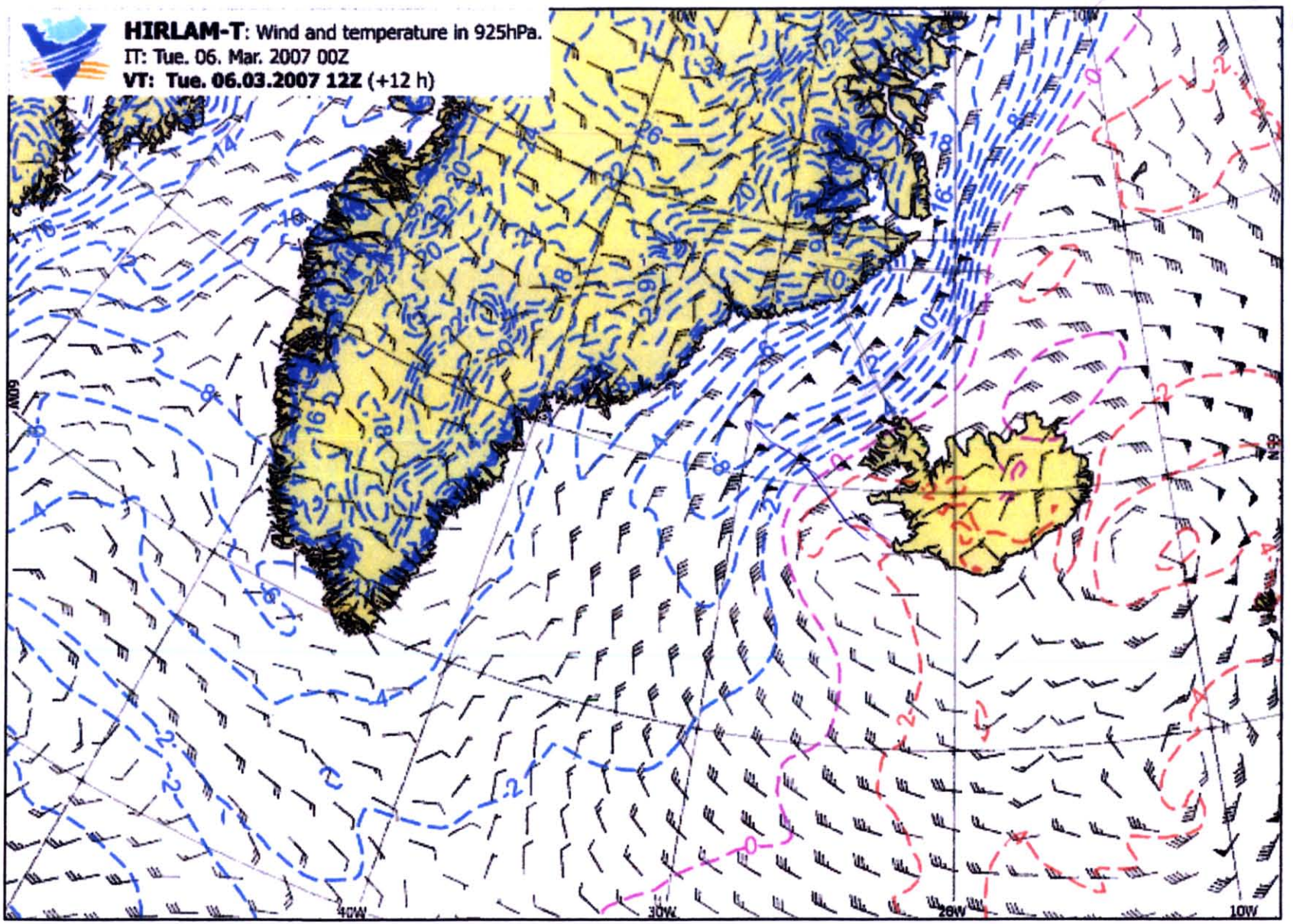
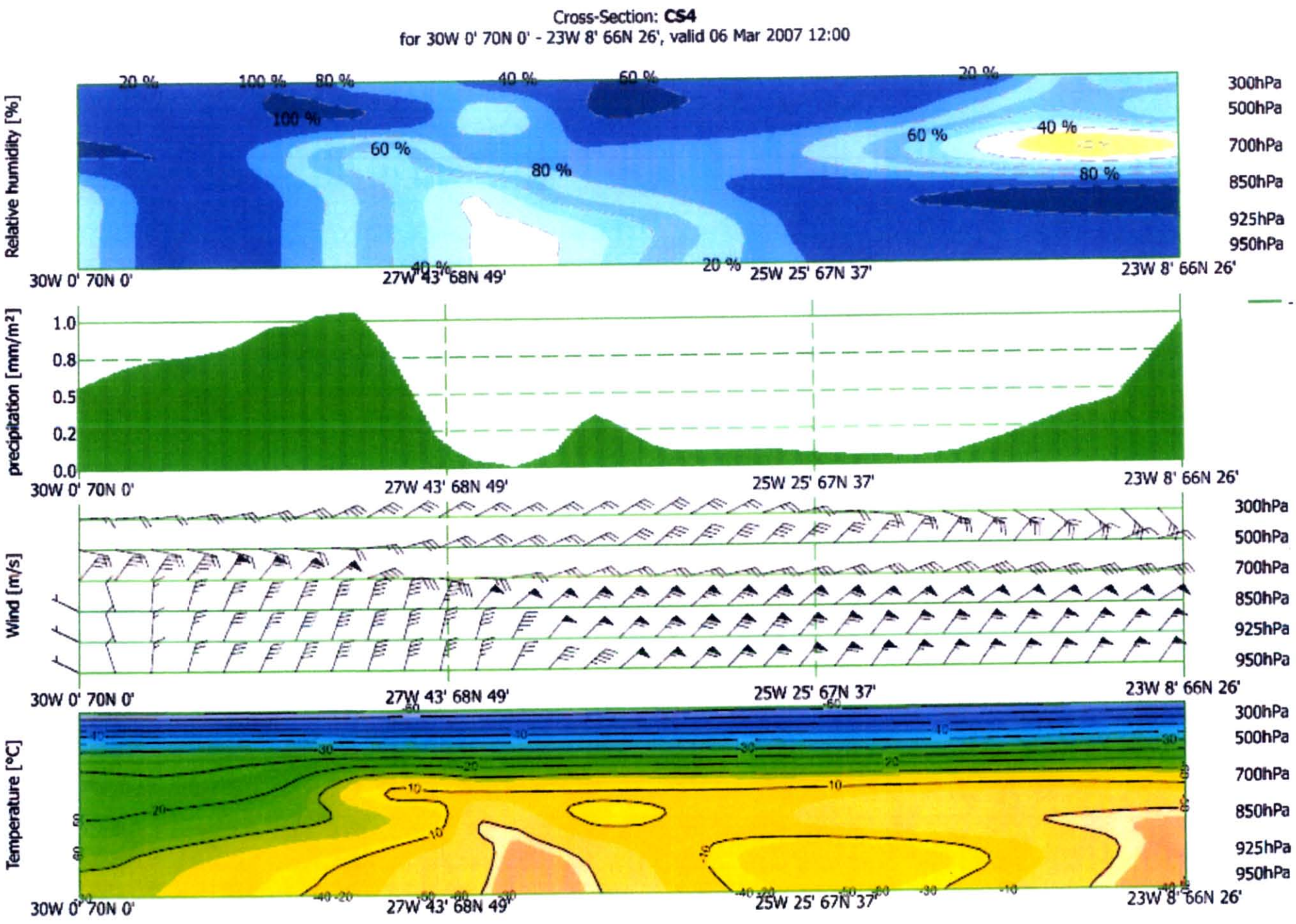


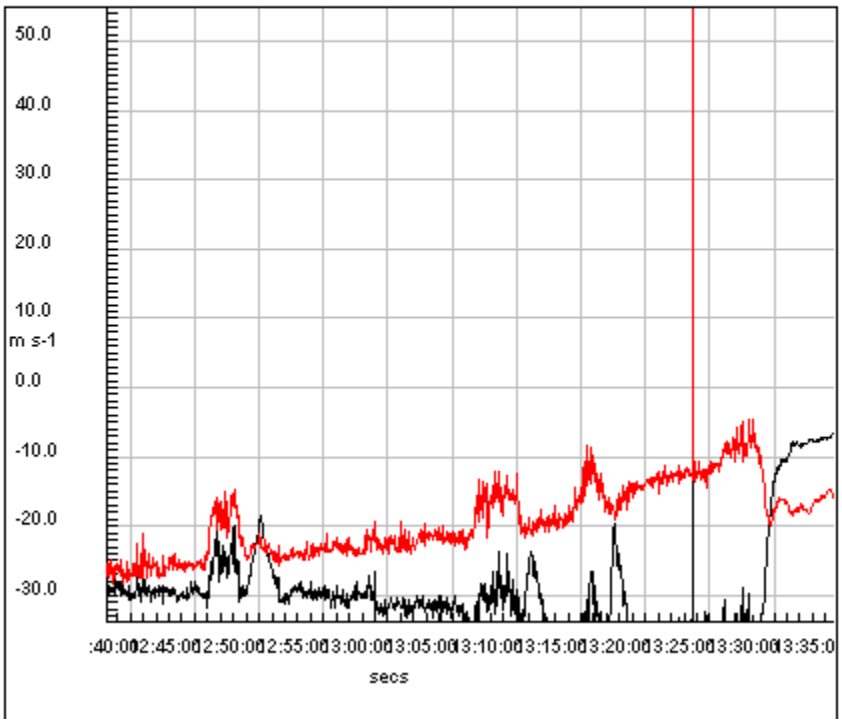

HIRLAM-T: Sensible (colored) and latent (contours) heat flux at the surface.
IT: Tue. 06. Mar. 2007 00Z
VT: Tue. 06.03.2007 12Z (+12 h)
-20 W/m²
0 W/m²
40 W/m²
60 W/m²
60 W/m²
0 W/m²
40 W/m²
60 W/m²
20 W/m²
280 W/m²
120 W/m²
0 W/m²
-60 W/m²
-80 W/m²
-180 W/m²
-40 W/m²
-200 W/m²
140 W/m²
100 W/m²
120 W/m²
-60 W/m²
-140 W/m²
-80 W/m²
-100 W/m²
-60 W/m²
-160 W/m²
-120 W/m²
-200 W/m² -160 W/m² -120 W/m² -80 W/m² -60 W/m² -40 W/m² -20 W/m² 0 W/m² 20 W/m² 40 W/m² 60 W/m² 80 W/m² 100 W/m² 120 W/m² 140 W/m² 160 W/m² 180 W/m²


HIRLAM-T: Wind and temperature in 925hPa.
IT: Tue. 06. Mar. 2007 00Z
VT: Tue. 06.03.2007 12Z (+12 h)
40W
30W
20W
10W


Cross-Section: CS4
for 30W 0' 70N 0' - 23W 8' 66N 26', valid 06 Mar 2007 12:00
Relative humidity [%]
precipitation [mm/m²]
Wind [m/s]
Temperature [°C]
300hPa
500hPa
700hPa
850hPa
925hPa
950hPa
30W 0' 70N 0'
27W 43' 68N 49'
25W 25' 67N 37'
23W 8' 66N 26'

Sawtooth Wind Component

Flight B277 13:40:18
Heading 54 deg Speed 245 knots Height 9.5kft Press 709mb
Lat 69°18.0'N Long 20°24.0'W Wind 17 ms-1/ 69 deg
Temp -10.41C Dewpoint -13.7C
From 12:42:58 to 13:42:40



Sawtooth Wind Speed

Flight B277 13:38:08
Heading 53 deg Speed 246 knots Height 7.4kft Press 767mb
Lat 69°12.0'N Long 20°42.0'W Wind 18 ms-1/ 64 deg
Temp -5.95C Dewpoint -10.9C
From 12:30:0 to now